

Wb
a plunger disposed within the capsule and configured to extrude the dental restoration material; and

an aperture window formed on the plunger, said air-permeable filter being disposed in the aperture window.

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-6 are pending in the application. Claim 1 has been amended and Claims 3-6 have been added by the present amendment.

In the outstanding Office Action, the drawings were objected to; the title was objected to; Claim 1 was rejected under 35 U.S.C. § 102(b) as anticipated by Drury; and Claim 2 was rejected under 35 U.S. C. § 103(a) as unpatentable over Drury in view of Applicants' Admitted Prior Art (AAPA).

Regarding the objection of the drawings, Figure 1 has been amended in light of the comments noted in the outstanding Office Action. A separate Letter Requesting Approval of Drawing Changes is being submitted to the draftsman. Thus, it is respectfully requested this objection be withdrawn.

Further, the specification has been amended to correct minor informalities. No new matter has been added.

Regarding the objection to the title, a new title has been added which is clearly indicative of the invention to which the claims are directed. Accordingly, it is respectfully requested this objection also be withdrawn.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Drury. This rejection is respectfully traversed.

The present invention as recited in Claim 1 is directed to a mixer for a capsule for a dental restoration material for mixing a powder component and a liquid component of the dental restoration material by shaking. The mixer includes a mixing component of a capsule configured to retain the dental restoration material and has an air-permeable filter configured to ventilate air within the mixing compartment to an outside of the mixing compartment, placed as an outer wall constituting at least a part of a peripheral wall of the mixing compartment. Also included is a capsule holding chamber configured to hold the capsule in a portion other than a portion corresponding to the air-permeable filter. The capsule holding chamber is further connected to a vacuum device.

For example, as shown in Figures 2-5, an air-permeable filter 1c is included in the mixing compartment 1a of the capsule and is configured to ventilate air within the mixing compartment 1a to an outside of the mixing compartment 1a. Thus, air present in the compartment for mixing the dental restoration material including a powder component A and a liquid component B accommodated in the capsule is sucked out of the mixing compartment to render the mixing compartment in vacuo, whereby the powder component and the liquid component can be mixed with each other by shaking (see the paragraph bridge in pages 8 and 9).

The outstanding Office Action states Drury discloses a mixer with a capsule holding chamber 18 for holding a capsule 28 for dental restoration material. Further, the outstanding Office Action indicates the chamber is connected to a vacuum device 64.

However, as noted above, the claimed invention includes an air-permeable filter configured to ventilate air within the mixing component to an outside of the mixing component, placed as an outer wall constituting at least part of a peripheral

wall of the mixing compartment. Drury, however, does not teach or suggest an air-permeable filter, and thus cannot achieve the advantages of the present invention.

Therefore, it is respectfully submitted independent Claim 1 and each of the claims depending therefrom are allowable.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Drury in view of AAPA. This rejection is respectfully traversed.

Claim 2 depends on Claim 1, which as discussed is believed to be allowable. Further, AAPA does not teach or suggest the claimed air-permeable filter. Therefore, it is respectfully requested this rejection also be withdrawn.

In addition, new Claims 3-6 have been added to set forth the invention in a varying scope, and Applicants submit the new claims are supported by the originally filed specification. In particular, new Claims 3-6 are directed to the air-permeable filters of Figures 2-5. Further, Claims 3-6 depend either directly or indirectly from Claim 1, which as discussed is believed to be allowable. Accordingly, it is respectfully submitted new Claims 3-6 are also allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599
David A. Bilodeau
Registration No. 42,325



22850

Tel: (703) 413-3000
Fax: (703) 413-2220
GJM/DAB/JD:ys
1:\attyJd20s\208267\208267ame.doc

Marked-Up Copy
Serial No: 09/852,210
Amendment Filed on:
August 9, 2002

IN THE TITLE

(New)

IN THE SPECIFICATION

Please replace the paragraph beginning on page 12, line 1, with the following text:

--A numeral 2 shows a liquid-accommodating tool for accommodating a definite amount of the previously weighed liquid component B. In the example of the embodiment shown in Fig. 2, the liquid-accommodating tool 2 is [a] an integrally formed synthetic resin-made cylindrical cap that can slide toward the side of the outlet hole 1b for the mixture within the cylindrical mixing compartment 1a of the capsule main body 1 and is provided with a thin film-like seal portion 2a to form a circular flow-in hole for the liquid component B on a center axis in a front end portion thereof. In the examples of the embodiments shown in Figs. 3 and 4, the liquid-accommodating tool 2 is constituted by a bag (pillow) in which the liquid component B is wrapped by a sheet film made by a resin, a metal foil, or a laminate made by a resin and a metal foil, to be installed between the capsule main body 1 and the cap 4 provided with the nozzle 4a. In the examples of the embodiment shown in Fig. 5, the liquid-accommodating tool 2 is constituted by a bag (pillow) in which the liquid component B is wrapped by a sheet film made by a resin, a metal foil, or a laminate

made by a resin and a metal foil, to be installed in the outside of an aperture hole provided on the side surface of the capsule main body 1.--

Please replace the paragraph beginning on page 13, line 1, with the following text:

--A numeral 3 shows a synthetic resin-made plunger for extruding the mixture of the powder component A and the liquid component B mixed with each other within the mixing compartment 1a of the capsule main body 1 toward the side of the outlet hole 1b for the mixture. The example of the embodiment in Fig. 2 shows an embodiment in which the plunger 3 is a integrally formed synthetic resin-made one that can slide toward the side of the thin film-like seal portion 2a within the liquid-accommodating tool 2, a rod-like protrusion 3a breaking through the thin film-like seal portion 2a of the liquid-accommodating tool 2 is provided in a front end portion thereof, and after leading the liquid component B within the liquid-accommodating tool 2 to flow into the mixing compartment 1a of the capsule main body 1, the plunger 3 moves together with the liquid-accommodating tool 2, thereby inserting the rod-like protrusion 3a into the outlet hole 1b for the mixture of the capsule main body 1. The examples of the embodiments shown in Figs. 3 to 5 show that plunger 3 is [a] an integrally formed synthetic resin-made one having such a shape that the mixture can slide toward the side of the outlet hole 1b for the mixture within the mixing compartment 1a of the capsule main body 1. In the example of the embodiment shown in Fig. 3, the plunger 3 is provided with the rod-like protrusion 3a breaking through the sheet film on the opposite side to the outlet hole 1b of the liquid-accommodating tool 2 in the front end portion thereof.--

Please replace the paragraph beginning on page 16, line 11, with the following text:

--In the embodiment shown in Fig. 2, the air-permeable filter 1c is placed in a state of clogging a mixture passage connecting the nozzle 4a for directly administering the mixture to a restoration site of a tooth to the mixing compartment 1a; in the embodiments shown in Figs. 3 and 5, the air-permeable filter 1c is placed on the side wall of the mixing compartment 1a; and in the embodiment shown in Fig. 4, the air-permeable filter 1c is placed on the side wall of the mixing compartment 1a and the plunger 3 extruding the mixture within the mixing compartment 1a toward the nozzle 4a for directly administering it to a restoration site of a tooth. In order to fix the air-permeable filter 1c at least in a part of the peripheral wall of the cylindrical mixing compartment 1a of the capsule main body 1, it is necessary to place the air-permeable filter 1c along the peripheral wall of the cylindrical mixing compartment 1a of the capsule main body 1. Accordingly, in [case] cases other than the case where the air-permeable filter 1c is kept between the capsule main body 1 and the cap 4 so as to clog the outlet hole 1b of the capsule main body 1 as in the embodiment shown in Fig. 2, an aperture window is formed on the side wall of the cylindrical mixing compartment 1a of the capsule main body 1 or the plunger 3 in the side facing [at] the mixing compartment 1a, and the air-permeable filter 1c disposed in the aperture window is pressed and fixed by a presser which is similarly provided with an aperture window. In this case, it is preferred that the air-permeable filter 1c is provided in a position other than the inner side wall of the mixing compartment 1a constituting a sliding surface with the plunger 3 (the liquid-accommodating tool 2 in the example of the embodiment shown in Fig. 2) that slides and moves along an inner wall of the mixing compartment 1a.--

Please replace the paragraph beginning on page 19, line 20, with the following text:

--A numeral 8 shows a mixing main body provided with a driving portion for mechanically shaking the capsule holding chamber 7. The mixing main body 8 is also provided with a motor as a driving source, a power source switch, etc. as well as a vacuum device 9 and a vacuum meter 9a. This vacuum device 9 is connected at one end to the capsule holding chamber 7 via an air hose 10 and has an inlet 11 for air from a dental unit at a second end. The vacuum device 9 may be a usual vacuum pump driven by a motor. However, when the vacuum device 9 is an ejector connected to a compressed air supply device for a dental unit, a compressed air supply device for a dental unit placed in a dental clinic can be used as a power source thereof, and the system can be made at low cost and of simple structure. Thus, the latter is preferred--

IN THE CLAIMS

--1. (Amended) A mixer for a capsule for a dental restoration material for mixing a powder component and a liquid component of [a] the dental restoration material by shaking [within], comprising:

Compartment 1.121

now
claiming
work

a mixing component of a capsule [for] configured to retain the dental restoration material and having an air-permeable filter[, which can] configured to ventilate air within the mixing compartment [into the] to an outside of the mixing compartment, placed as an outer wall constituting at least a part of a peripheral wall of the mixing compartment[, wherein the mixer is provided with]; and

a capsule holding chamber [for holding] configured to hold the capsule [for dental restoration material] in a portion other than a portion corresponding to the air-permeable filter, [and] the capsule holding chamber [is] being connected to a vacuum device.--

Claims 3-6 (New).